UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

APR 14 2016

Sandy Stephens
Office of Environmental Services
Water Permits Division
P.O. Box 4313
Baton Rouge, LA 70821-4313.

Dear Ms. Stephens:

In preparation for the next triennial revision to the *Louisiana Surface Water Quality Standards*, we have reviewed recommendations made during previous revision processes and other sources of information and offer recommendations concerning current triennial revision. EPA has made several changes to the national recommended water quality criteria since the state's last review. EPA recommends review of the Louisiana aquatic life criteria in Table 1 and Table 1A (see enclosure), as well as adoption and updates to these criteria as appropriate to reflect the most current Clean Water Act (CWA) §304(a) national criteria recommendations and recalculation procedures. EPA's most recent §304(a) national aquatic life criteria recommendations can be found on the following EPA website: https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table.

EPA published an updated guidance for recalculation of aquatic life criteria, as part of the implementation tools released at the same time as the 2013 ammonia document. We strongly recommend the state adopt these criteria. EPA's recommendations on ammonia can be found at the following EPA website: http://water.epa.gov/scitech/swguidance/standards/criteria/aqlife/ammonia/. EPA anticipates the publication of updated recommendations for selenium aquatic life criteria in 2016. We will provide these documents, as soon as they are available, for consideration in revisions of the Louisiana standards. Updates and documentation for selenium criteria can be found at the following EPA website: https://wcms.epa.gov/wqc/aquatic-life-criterion-selenium.

The tables included in the enclosure reflect the changes needed to update the Louisiana Water Quality Standards to current §304(a) criteria, with the exception of cadmium, which has recently been updated. We strongly recommend that the state change criteria to reflect current national recommendations for cadmium. Updated cadmium criteria can be found at the following website: https://www.epa.gov/wqc/aquatic-life-criteria-cadmium. We would like to remind the state that, per the revised regulations (§131.20(a)), LDEQ is obligated to provide rationale should they choose to not adopt current §304(a) criteria.

EPA would like to commend LDEQ on their work and collaboration towards updating recreational criteria for marine waters taking into account the BEACH Act requirement. We appreciate the dedication and cooperation of LDEQ staff. Careful review of nutrient policies, criteria and implementation is needed and strongly encouraged. EPA recommends careful review of the antidegradation policies, and requests the existing policy be updated to reflect current federal guidance and provide clarification where needed. Ongoing discussion and collaboration with EPA staff on the development of revisions to the water quality standards, and plans to implement those revisions, is both expected and encouraged.

We look forward to continuing work with you and your staff on the protection of water resources. If you have any questions, please contact me at (214) 665-6644 or have your staff contact Klaire Freeman at (214) 665-7239.

Sincerely,.

Philip A. Crocker
Chief
Watershed Management Section (6WQ-EW)

Enclosure

Enclosure

§1113 Criteria

The following tables show which aquatic life and human health criteria EPA strongly recommends the State adopt, with the current LA criteria and the current EPA nationally recommended criteria. These tables do not include recommendations for cadmium, which has recently been updated. Please see the reference for cadmium in the letter above.

Recommended Changes to Table 1

	Freshwater µg/L			
Toxic Substance	**LA Acute**	**EPA Acute**	**LA Chronic**	**EPA Chronic**
Cyanide	45.9	22	5.4	5.2
Endrin	0.0864	0.086	0.0375	0.036
Hexachlorocyclohexane (gamma BHC; Lindane)	5.3	0.95	0.21	--

Toxic Substance	**Drinking Water Supply ug/L**	
	LA	**EPA**
Aldrin	0.00004	0.00000077
Cyanide	663.8	4
DDE	0.00019	0.000028
DDT	0.00019	0.00003
1,-3-Dichloropropene	0.33	0.27
Dieldrin	0.00005	0.0000012
Endrin	0.26	0.03
Ethylbenzene	247	68
Heptachlor	0.00007	0.0000059
Hexachlorobenzene	0.00025	0.000079
Hexachlorobutadiene	0.09	0.01
Hexachlorocyclohexane (gamma BHC; Lindane)	0.11	0.0066
Polychlorinated Biphenyls, Total (PCBs)	0.000559	0.000064
2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)5	.71x10-6	5.0x10-9
Toluene	6,100	57
1,1,2-Trichloroethane	0.56	0.55
Trichloroethylene	2.8	0.6
Vinyl Chloride (Chloroethylene)	0.0237	0.022

Recommended Changes to Numerical Criteria to Table 1A

Toxic Substance	LA Acute	EPA Acute	LA Chronic	EPA Chronic
Chromium III	$e^{(0.8192[\ln(\text{hardness})] + 3.6880)} \times 0.316$	$e^{(0.8190[\ln(\text{hardness})] + 3.7256)} \times 0.316$	$e^{(0.8192[\ln(\text{hardness})] + 1.5610)} \times 0.860$	$e^{(0.8190[\ln(\text{hardness})] + 0.6848)} \times 0.860$
Cadmium	$e^{(1.1280[\ln(\text{hardness})] - 1.6774)} \times (1.136672 - [\ln(\text{hardness})(0.041838)])$	$e^{(1.0166[\ln(\text{hardness})] - 3.924)} \times (1.136672 - [\ln(\text{hardness})(0.041838)])$	$e^{(0.8192[\ln(\text{hardness})] - 1.3860)} \times (1.101672 - [\ln(\text{hardness})(0.41838)])$	$e^{(0.7409[\ln(\text{hardness})] - 4.719)} \times (1.101672 - [\ln(\text{hardness})(0.41838)])$
Copper	$e^{(0.9422[\ln(\text{hardness})] - 1.3844)} \times 0.960$	$e^{(0.9422[\ln(\text{hardness})] - 1.700)} \times 0.960$	$e^{(0.8545[\ln(\text{hardness})] - 1.3860)} \times 0.960$	$e^{(0.8545[\ln(\text{hardness})] - 1.702)} \times 0.960$

Toxic Substance	LA Acute	EPA Acute	LA Chronic	EPA Chronic
Copper	3.63	--	3.63	3.1
Mercury	2	1.8	0.025	--